



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

Atty. Ref.: 2333-125; Confirmation No. 4899

Appl. No. 10/665,367 TC/A.U. 3762

Filed: January 28, 2004 Examiner: HOLMES, Rex R.

For: HARMLESS WIRELESS ENERGY TRANSMISSION TO IMPLANT

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November 1, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

## **RESPONSE TO OFFICE ACTION**

Reconsideration of this application is respectfully requested.

The “Office Action Summary” page of the Office Action mailed July 31, 2006 states that “claims 1-28” are pending in this application, and that “claims 1-28” are rejected. However, in the second and sixth paragraphs of pages 2 and 3 of the Office Action, claim 29 is discussed. From the latter, Applicant believes that it is clear that claims 1-29 are pending in the application.

In the outstanding Office Action of July 31, 2006, the Examiner rejected claims 1-4, 8, 10-13, 17, 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Fuller (U.S. Patent No. 3,872,455). The Examiner also rejected, as being unpatentable under 35 U.S.C. §103(a), claims 5, 7, 14, 16, 23, and 25 over Fuller alone; claims 6, 9, 15, and 18 over Fuller as applied to claim 1 and 10, and further in view of Winkler (U.S. Patent No. 5,527,348); and claims 19-22, 24, and

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26 over Fuller and further view of Von Arx (U.S. Application No. 2003/0114897). The Examiner's rejections are respectfully traversed.

For a claimed invention to be anticipated by a prior art reference, every element of the claim must be disclosed in the reference. For a claimed invention to be obvious over a combination of prior art references, there must be some suggestion, motivation or teaching in the prior art that would have led one of ordinary skill in the art to combine the references to produce the claimed invention. *E.g., Ashland Oil, Inc. v. Delta Resins & Refracs.*, 776 F.2d 281, 293 (Fed. Cir. 1985).

Claims 1-4, 8, 10-13, 17, 28 and 29 are not anticipated by Fuller because Fuller fails to disclose at least two of the limitations of such claims. Claims 5, 6, 7, 9, 14, 15, 16, 18, 23 and 25 are also not obvious over Fuller alone, or Fuller in combination with Winkler or Von Arx because, even assuming, *arguendo*, that the Examiner properly combined the cited references, the resulting combination still would not be the claimed invention, given that the primary Fuller reference fails to disclose at least two of the limitations of such claims.

Independent claims 1, 10, 19, 28, and 29 of the present application each recite (1) a receiver implanted or implantable in a human or animal body for receiving an alternating magnetic field and for drawing energy from the alternating magnetic field to be supplied to an energy consuming implanted medical device, and (2) a shield including a magnetizable casing that is integrated with a magnetizable core extending in the coil.

Neither of these limitations is disclosed in Fuller.

Figure 1 of Fuller discloses a telemetering system 10 for monitoring the temperature of, for example, a hospital patient. The system includes a telethermometer transmitter, or sender, assembly 12, and an associated telethermometer receiver and display assembly 14. Fuller, col. 7,

Ins. 13 – 23. The sender unit 12 includes a temperature-variable sensor 16, a blocking oscillator 18 that functions as a temperature modulated carrier wave generator, and an antenna winding 20 which is wound on a ferromagnetic core and serves as the antenna for the sender unit 12. Fuller, col. 7, Ins. 24 – 33.

Fuller does not disclose a receiver implanted or implantable in a human or animal body for receiving an alternating magnetic field and for drawing energy from the alternating magnetic field to be supplied to an energy consuming implanted medical device, as recited in independent claims 1, 10, 19, 28 and 29 of the present application. Rather, Fuller's sender unit 12 is implantable in a patient, while Fuller's receiver and display assembly 14 is not, since it is designed to be carried by medical personnel:

The transmitter assembly is packaged in a housing which requires a volume of less than one-fourth cubic inch and is enclosed in a soft cellular urethane cover on one side and an adhesive pad on the other to permit attachment of the device in direct contact with the part of the body where, for example, is to be detected.

Alternatively, the transmitter may be implanted surgically, may be ingested, or may be applied in a suppository manner, to place the sensor unit in proper relationship with the part of the body where the parameter is to be sensed.

The transmitter and receiver units are entirely separate, with the receiver being portable for use by medical personnel in measuring the temperature of a patient. The receiver is a hand-held remote digital indicator which is battery powered and, when located within a short distance of a single transmitter, is sufficiently selective in its response to enable the operator to obtain an accurate reading. Although the preferred range of response to a transmitter is less than 3 feet, accurate readings can be obtained at a greater distance and, where other sensors do not interfere, the receiver is capable of providing accurate readings seven feet or more away from the transmitter.

Fuller, col. 7, ln. 62 to col. 8, ln. 18. (Emphasis added.)

Fuller also does not disclose a shield including a magnetizable casing that is integrated with a magnetizable core extending in a coil, as recited in independent claims 1, 10, 19, 28 and 29 of the present application.

Figure 3 of Fuller shows the antenna assembly 62 of transmitter unit 12 as further including a tubular core 64 about which is wound the winding 20 and which encompasses a power supply battery 66 of transmitter 12. The antenna assembly 62 is electrostatically shielded, as by a coating 68 of zinc, which is sprayed onto the outside of the winding 20, over the top end of the dry cell battery 66, and over the top end of the iron sleeve, or core 64. The electrostatic shield 68 thus is in the form of an inverted cap-shaped shield member electrically connected to the upper terminal of the battery 66 and embracing the battery, the core 64, and the winding 20, thereby precluding electrostatic interference with the resonant circuit of the transmitter. Fuller, col. 9, ln. 53 to col. 10, ln. 6.

In Paragraph 3 of the Action, the Examiner states that “FULLER also discloses that the shield is made of ferrite”. However, Fuller teaches that the antenna assembly 62 is electrostatically shielded, as by a coating 68 of zinc, which is not a ferrite. Ferrites are electrically non-conductive ferromagnetic ceramic compound materials, consisting of various mixtures of iron oxides. *See, e.g.*, WIKIPEDIA, definition of “Ferrite (magnet)” (30 October, 2006), (Attachment A). Since a ferrite is electrically non-conductive it is unsuited for electrostatic shields. Nor is zinc a magnetizable material. *See, e.g.*, U.S. Patent No. 4,612,244 to Kaneda *et al.*, col. 5, lns. 59 – 61 (Attachment B), and U.S. Patent No. 6,488,668 to Prindle, col. 6, lns. 7 – 9 (Attachment C). Fuller uses the zinc coating 68 as an electrostatic shield, but Fuller does not teach that the zinc coating can be replaced by a magnetizable material.

Thus, Fuller does not anticipate independent claims 1, 10, 19, 28 and 29 nor does it render said claims obvious. As such, Fuller also does not anticipate or render obvious dependent claims 2-9, 11-18 and 20-27, which depend directly or indirectly from such claims.

Given the foregoing deficiencies in the teachings of Fuller, the combinations of Fuller with Winkler or Von Arx, as argued by the Examiner with respect to claims 6, 9, 15, and 18 and claims 19-22, 24, and 26, respectively, would also not result in the invention, as described in these claims. The Examiner cites Winkler for its asserted teaching that it is known to use a plastic casing to provide an operator with a buffer between his or her hand and a magnetic field created by a coil. Van Arx is cited by the Examiner for the asserted teaching that it is known to use two transmitters to provide other embodiments of a telemetry device that can have more than one transmitter to provide increased power/energy to the device. Assuming, *arguendo*, that the Examiner's assertions are correct, clearly, neither of these teachings compensate for the noted deficiencies in the teachings of Fuller.

In view of the foregoing, it is believed that all of the claims remaining in the application, *i.e.*, claims 1-29, are now in condition for allowance, which action is earnestly solicited. If any

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issues remain in this application, the Examiner is urged to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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